

IN THE CLAIMS:

Please rewrite Claims 1-5 and 13-18 and add new Claims 19-33, as follows. Please cancel Claims 6-12.

- 1 1. (Currently Amended) A system for ensuring the qualifications of a workman to follow
2 proper procedures for performing a covered task for which joining polyethylene pipe and
3 fittings as required by regulatory authorities have established required standards,
4 comprising:
5 means for providing the hardware and software for performing a Department of
6 Transportation-covered task[[s]];
7 means for interactive teaching, testing and/or evaluating the simulation or
8 performance of a said Department of Transportation-covered task[[s]]; and verify by
9 means of documenting the results of said interactive teaching, testing and/or
10 evaluating of said simulation or performance of a said Department of Transportation
11 covered task[[s.]], and locating and recording the site of the covered task by means of the
12 system's GPS.
- 1 2. (Currently Amended) A system ~~for ensuring proper procedures for joining polyethylene~~
2 ~~pipe and fittings as required by regulatory authorities according to claim 1 wherein said~~
3 ~~Department of Transportation-covered tasks are~~ task is selected from mechanical, heat
4 fusion and electro-fusion.
- 1 3. (Currently Amended) A system ~~for ensuring proper procedures for joining polyethylene~~
2 ~~pipe and fittings as required by regulatory authorities according to claim 2 wherein a said~~
3 mechanical covered task includes compression, bolt-on or stab-on connections.

1 4. (Currently Amended) A system ~~for ensuring proper procedures for joining polyethylene~~
2 ~~pipe and fittings as required by regulatory authorities~~ according to claim 2 wherein said
3 heat fusion covered task[[s]] includes butt fusion, socket fusion or sidewall fusion.

1 5. (Currently Amended) A system ~~for ensuring proper procedures, for joining polyethylene~~
2 ~~pipe and fittings as required by regulatory authorities~~ according to claim 2 wherein said
3 electro-fusion covered task includes in-line coupling fusion or saddle fusion.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

1 13. (Currently Amended) A method of ensuring that the qualifications of a workman to
2 follow proper procedures installations of electric heat weldable thermoplastic fittings to
3 plastic pipe of a covered task selected from a list of identified covered tasks to meet
4 governmental and/or industrial standards, comprising the steps of:

5 (a) for each ~~installation~~ covered task, measuring physical parameters employed by
6 the workman in the application ~~of a heat weldable thermoplastic fittings to a~~

7 ~~plastic pipe, or simulation of the application of steps required to complete the~~
8 ~~covered task;~~

9 (b) recording the values of parameters measured or simulated in step (a) as to each
10 ~~installation covered task;~~

11 (c) comparing the values recorded in step (b) for each ~~installation covered task~~ with
12 approved pre-established standards; and

13 (d) providing a record of the results of step (c) identifying ~~installations covered tasks~~
14 that meet and/or those that don't meet said pre-established approved standards to
15 thereby determine the qualification of a workman.

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1 14. (Currently Amended) A method ~~of ensuring that installations of electric heat weldable~~
2 ~~thermoplastic fitting to plastic pipe meet governmental and/or industrial standards~~
3 according to claim 13 wherein step (a) includes measuring or simulating the voltage,
4 current, and time of application of voltage applied to electric heat weldable fittings.

1 15. (Currently Amended) A method ~~of ensuring that installations of electric heat weldable~~
2 ~~thermoplastic fitting to plastic pipe meet governmental and/or industrial standards~~
3 according to claim 13 including measuring or simulating and ~~recording, as to each~~
4 ~~installation,~~ the applicable ambient temperature.

1 16. (Currently Amended) A method ~~of ensuring that installations of electric heat weldable~~
2 ~~thermoplastic fitting to plastic pipe meet governmental and/or industrial standards~~
3 according to claim 13 wherein apparatus used in performing the covered task (each said
4 heat weldable thermoplastic fitting) has thereon a bar code having encoded information
5 relating to requirements for the successful (welding application thereof) performance of
6 the covered task and including the step of reading said bar code and employing

7 information obtained therefrom to provide at least a portion of said ~~approved pre-~~
8 ~~established governmental and/or industrial~~ standards.

1 17. (Currently Amended) A method ~~of ensuring that installations of electric heat weldable~~
2 ~~thermoplastic fitting to plastic pipe meet governmental and/or industrial standards~~
3 according to claim 13 including the step of storing ~~information as to the parameters~~
4 ~~employed in the application of each electric heat weldable thermoplastic fitting to a~~
5 ~~thermoplastic pipe~~ said record of the results of step (d).

al 1 18. (Currently Amended) A method ~~of ensuring that installations of electric heat weldable~~
2 ~~thermoplastic fitting to plastic pipe meet governmental and/or industrial standards~~
3 according to claim ~~[[14]]~~ 17 including the step of printing out a permanent record of the
4 ~~steps employed in applying each electric heat weldable thermoplastic fitting to a plastic~~
5 ~~pipe~~ results of step (d) whereby the qualifications of a workman as to each task performed
6 or simulated by the workman can be preserved.

1 19. (New) A system for ensuring the qualification of a workman to follow proper procedures
2 for performing a covered task according to claim 1, including:
3 means for identifying and recording the location of the site of said covered task.

1 20. (New) A system for ensuring the qualification of a workman to follow proper procedures
2 for performing a covered task according to claim 19, wherein said means for identifying
3 and recording the location of the site of said covered task includes global positioning
4 system instrumentation.

1 21. (New) A system to ensure the proficiency of a workman when performing a task for
2 which regulatory authorities or industries have established required standards, referred to
3 as a covered task, comprising:

4 means for providing an interactive training, testing and/or learning environment
5 permitting the workman to physically interact with the subject matter making up the
6 covered task;

7 means providing hardware and software for performing a covered task by the
8 completion of a predefined sequence of steps;

9 as to a specific covered task, means permitting the workman to physically
10 perform said covered task or simulate the performance of said covered task;

11 means to provide a record that records each step taken by said workman in the
12 performance, whether actual or simulated, of said covered task; and

13 means to evaluate the workman performance and verify each covered task
14 completed, whether actual or simulated, to provide an indication of the proficiency of
15 said workman.

1 22. (New) A system according to claim 21 wherein said covered task is selected from
2 mechanical, heat fusion and electro-fusion covered tasks.

1 23. (New) A system according to claim 22 wherein said mechanical covered task is selected
2 from compression, bolt-on or stab-on connections covered tasks.

1 24. (New) A system according to claim 21 wherein said covered task is for joining
2 polyethylene pipe and fittings by heat fusion and wherein said heat fusion covered tasks
3 include butt fusion, socket fusion or sidewall fusion and wherein said hardware includes

4 infrared thermometer instrumentation for measuring surface temperature of heat fusable
5 components.

1 25. (New) A system according to claim 21 wherein said covered task covers electro-fusion
2 of in-line coupling fusion or saddle fusion.

1 26. (New) A system according to claim 21 wherein said covered task includes the
2 application of electrical energy to an electric heat weldable thermoplastic fitting to weld
3 the fitting to a thermoplastic pipe and wherein said hardware includes:

a1
4 a voltage source;

5 a microprocessor operated voltage control circuit connected to said voltage source
6 and having an output removably connectable to an electric heat weldable thermoplastic
7 fitting;

8 an amperage measurement circuit in association with said voltage control circuit
9 for determining current flow through said heat weldable thermoplastic fitting; and

10 an input system connected to said voltage control circuit to impart characteristics
11 of the weldable thermoplastic fitting and ambient conditions, the voltage control system
12 serving to apply proper voltage for a determined time to complete thermoplastic welding
13 of the fitting to a thermoplastic pipe.

1 27. (New) A system according to claim 26 wherein said covered task includes the
2 application of electrical energy to an electric heat weldable thermoplastic fitting
3 according and including;

4 an ambient temperature circuit forming a part of said input system.

1 28. (New) A system according to claim 21 wherein said covered task includes controlling
2 the application of electrical energy to an electric heat weldable thermoplastic fitting and
3 wherein said hardware includes;

4 a sensor for detecting the temperature of said weldable thermoplastic fitting; and
5 a logic circuit responsive to said sensor forming a part of said input system.

a 1 29. (New) A system according to claim 21 wherein said covered task includes controlling
2 the application of electrical energy to an electric heat weldable thermoplastic fitting and
3 wherein said hardware includes;

4 feed-back logic circuitry interconnected between said weldable thermoplastic
5 fitting and said voltage control circuit.

1 30. (New) A system according to claim 21 wherein said covered task includes controlling
2 the application of electrical energy to an electric heat weldable thermoplastic fitting and
3 wherein said weldable thermoplastic fitting has thereon a bar code having encoded
4 information relating to requirements for to successful welding application thereof and
5 wherein said hardware includes an input system having a bar code reader.

1 31. (New) A system according to claim 21 wherein said covered task includes controlling
2 the application of electrical energy to an electric heat weldable thermoplastic fitting and
3 wherein said hardware includes an information storage system in communication with an
4 input system by which information as to the parameters employed in the application of an
5 electric heat weldable thermoplastic fitting to a thermoplastic pipe are stored.

1 32. (New) A system according to claim 21 wherein said covered task includes controlling
2 the application of electrical energy to an electric heat weldable thermoplastic fitting and

3 wherein said hardware includes a printer in communication with an information storage
4 system for providing a print out of details of welding said electric heat weldable
5 thermoplastic fitting to a plastic pipe.

1 33. (New) A system for ensuring the qualification of a workman to follow proper procedures
2 for performing a covered task according to claim 21 including:

3 means for identifying and recording the location of the site of said covered task.

1 34. (New) A system for ensuring the qualification of a workman to follow proper procedures
2 for performing a covered task according to claim 33 wherein said means for identifying
3 and recording the location of the site of said covered task includes global positioning
4 system instrumentation.

1 35. (New) A method of ensuring the qualification of a workman to follow proper procedures
2 when performing a task for which regulatory authorities or industries have established
3 required standards, referred to as a covered task, comprising:

4 involving the workman in an interactive training, testing and/or learning
5 environment;

6 providing hardware and software for performing a covered task by completion of
7 a predetermined sequence of steps;

8 permitting a workman to perform or simulate the performance of said covered
9 task employing said hardware and software;

10 making a record of each step taken by said workman when performing or
11 simulating the performance of said covered task; and

12 evaluating said record to obtain an indication of the proficiency of said workman
13 to perform the covered task.

1 36. (New) A method of ensuring the qualification of a workman according to claim 35 in
2 which the covered task is the installation of an electric heat weldable thermoplastic fitting
3 wherein the heat weldable thermoplastic fitting has thereon a bar code having encoded
4 information relating to requirements for the successful installation thereof and including
5 the step of reading said bar code and employing information obtained therefrom in the
6 evaluation of the proficiency of said workman.

1 37. (New) A method of ensuring the qualification of a workman according to claim 35
2 including the step of printing out a permanent record of each step employed by said
3 workman whereby if a workman fails to achieve qualification, the reason therefor may be
4 identified.

1 38. (New) A method according to claim 35 including the step of identifying and recording
2 the location of the site of said covered task.

1 39. (New) A method according to claim 38 wherein said step for identifying and recording
2 the location of the site of said covered task includes the use of global positioning system
3 instrumentation.